53. (New) A method for controlling data transmission over a data network, the method comprising the steps of:

copying data to be transmitted from a main memory in a host computer to a buffer memory in a network controller;

transmitting data from the buffer memory over a physical link of the data network in response to a threshold quantity of the data having been copied to the buffer memory; and

providing an indication to the host computer that a frame of data has been successfully transmitted over the physical link of the data network in response to the frame of data having been copied to the buffer memory.

54. (New) The method of claim 53 including the additional step of unallocating memory locations in the buffer memory upon successful transmission of the frame of data over the physical link.

55. (New) The method of claim 53 wherein the threshold quantity of data is less than a frame of data.

56. (New) The method of claim 53 wherein the threshold quantity of data is greater than a frame of data.

57. (New) The method of claim 53 wherein the network controller monitors transmit events while transmitting data over the physical link of the data network.

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~~58. (New) The method of claim 57 wherein the network controller~~ 26

maintains a statistical history of transmit events identified while transmitting data

over the physical link of the data network.

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59. (New) An apparatus facilitating the transmission of data over a

physical link of a data network, comprising:

a buffer memory having a plurality of memory locations; and

a controller coupled to the buffer memory, the controller to initiate 3

transmission of data over the physical link in response to a threshold quantity of

data having been copied into the buffer memory from a coupled host computer,

the controller to provide an indication of successful frame transmission over the

physical link to the host computer in response to a predetermined quantity of

data having been copied to the buffer memory.

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60. (New) The apparatus of claim 59 wherein the predetermined quantity

of data is a frame of data.

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61. (New) The apparatus of claim 59 wherein the indication is a transmit

complete signal.

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62. (New) The apparatus of claim 59 wherein the controller monitors

transmit events while data is being transmitted over the physical link of the data

~~network.~~

~~63. (New) The apparatus of claim 59 further comprising a storage~~ medium wherein a statistical history compiled by the controller is maintained.

64. (New) A computer system comprising:

a central processing unit (CPU);

a bus coupled to the CPU;

a main memory coupled to the bus; and

a bus controller coupled between the bus and a physical link of a data network, the bus controller including buffer memory having a plurality of memory locations, the bus controller to initiate transmission of data over the physical link in response to a threshold quantity of data having been copied into the buffer memory from the main memory, the bus controller to provide an indication of successful frame transmission over the physical link to the CPU in response to a predetermined quantity of data having been copied to the buffer memory.

65. (New) The computer system of claim 64 wherein the predetermined quantity of data is a frame of data.

66. (New) The computer system of claim 64 wherein the predetermined quantity of data is a frame of data.

67. (New) The computer system of claim 64 wherein the indication is a ~~transmit complete signal.~~